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What is This?

Measuring effective democracy: A defense

Amy C. Alexander, Ronald Inglehart and Christian Welzel

Abstract

Against recent criticism, this article demonstrates that the effective democracy index (EDI) has scale properties that are fully consistent with the normative premises of the index's construction logic. Empirically, it is shown that the EDI deviates from all other indices of democracy in a perfectly intended way that incorporates substantiating qualities of democracy which the other indices neglect. As a result, the EDI outperforms all other democracy indices in its associative strength with key theoretical correlates of democracy, conditional and consequential. From a substantive point of view, the EDI is the most reliable and valid index of democracy that is currently available.

1. Introduction

Since the third wave of democratization (Huntington, 1991), the world has witnessed an inflation of electoral democracies. But many of the new democracies show deficiencies in basic institutional qualities, such as the protection of human rights. To account for these deficiencies, scholars pay more attention to institutional qualities that do not necessarily define democracy, but are needed to make democracy work (Adcock and Collier, 2001; Collier and Adcock, 1999; Collier and Levitsky, 1997; Merkel, 2004). Among the deficient institutional qualities, the rule of law looms the largest (Diamond, 2002; O'Donnell, 2003; Rose, 2009).

Accordingly, Welzel et al. (2003) proposed an index of 'effective' democracy that downgrades a country's democracy rating for deficiencies in the rule of law. Against criticism by Hadenius and Teorell (2005), Inglehart and Welzel (2005, 2006) demonstrated the usefulness of the effective democracy index in analyzing the relationship between modernization, culture, and democracy. Subsequently, Alexander and Welzel (2008, 2011) tested the effective democracy index against the six most widely used democracy indices. They found that the effective democracy index

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outperformed the other indices in associative strength: the index showed stronger associations with democracy's key theoretical correlates, including economic prosperity, distributional equality, civic values, civil society, and (as we will see) peace. Furthermore, the index of effective democracy exposes a pattern largely ignored by previous research: the *global rarity of electoral democracy* before the third wave has been replaced by a similar *rarity of effective democracy* today.

Unaware of these contributions, Knutsen (2010) criticized an old version of the effective democracy index that used Transparency International's Corruption Perception Index as a proxy for the rule of law. The new version of the effective democracy index, by contrast, uses the more broadly based and finely graded Rule of Law Index from the World Bank's Good Governance Project (Kaufmann et al., 2006).

Nevertheless, Knutsen formulates some novel criticisms that might apply to the new version of the effective democracy index. Because measuring democracy is a central topic, this is an important question that invites further examination. Hence, this article tests to what extent Knutsen's critique is justified with respect to the new version of the effective democracy index.

The article is organized into the following sections. Section 2 summarizes the construction logic of the effective democracy index. In the next section, we analyze Knutsen's criticisms point by point. The results suggest a rejection of the criticisms. Consequently, we reestablish the merits of the effective democracy index in the concluding section.
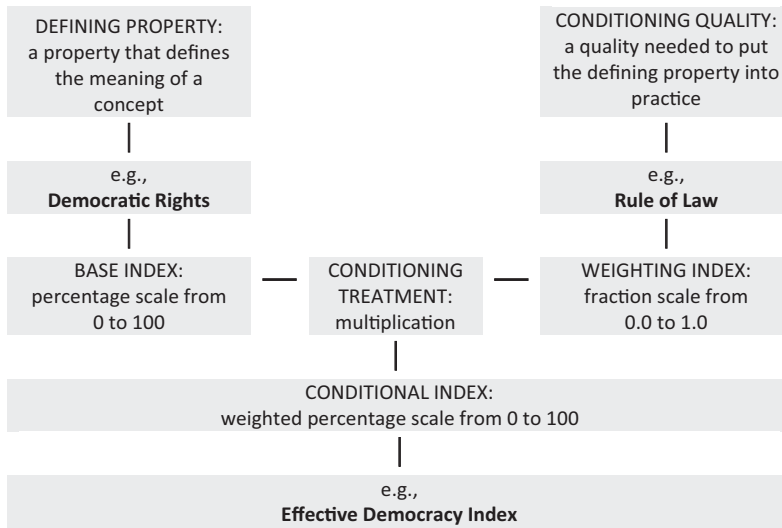
2. The index of effective democracy

2.1. Rationale

The authors of the effective democracy index start from an 'emancipative' notion of democracy. This notion is implicit in liberal and contractual thought (Held, 2006) and expressed in the characterization of democracy as a tool of 'human development' by Dahl (1989) and Sen (1999). These approaches coincide with Brettschneider's self-governance theory of democracy (2007) and are integrated in Welzel and Inglehart's human empowerment framework (2008). The emancipative notion defines the key purpose of democracy as the equal empowerment of people to govern their lives based on their own, and mutually agreed, preferences.[1]

From the emancipative point of view, popular rights that entitle people to make their own choices in individual matters and to have their choices count in collective matters are first-order tools of democracy. Individual freedom of choice is granted by personal autonomy rights, while collective freedom of choice is granted by political participation rights. As equal rights of the 'demos,' autonomy rights and participation rights combine into 'democratic rights,' which only in conjunction entitle people fully to govern themselves.

Democratic rights are an institutional property that defines democracy. From the *defining* properties of a concept one can distinguish *conditioning* qualities (compare Møller and Skaaning, 2010). Conditioning qualities are not part of a concept's definition, but are needed to put the defining properties into practice. Because democratic rights are defined by laws, the most obvious conditioning quality is the rule of law (O'Donnell, 2003; Warren, 2006). Understood as law enforcement, the rule of law is not itself a defining property of democracy, for law enforcement is not an exclusive attribute of democracies. Yet, the rule of law is certainly a conditioning quality of democratic rights: rights are effective only to the extent that the rule of law enforces them.

To measure effective democratic rights, one cannot just add up democratic rights and the rule of law or calculate an average of the two. This would confuse the defining property (that is, democratic rights) with its conditioning quality (that is, the rule of law). Instead, conditionality

Figure 1. The Effective Democracy Index as an Application of a General Scheme to Provide Qualified Indices of Democracy

requires that one weights the defining property for deficiencies in its conditioning quality (Goertz, 2006: 104). The logic of conditionality is depicted in Figure 1.

2.2. Measurement

Provided democratic rights vary by degree, an intuitive way to measure them is a percentage scale from 0, for the complete absence of democratic rights, to 100, for their full presence. We call this percentage index the 'democratic rights index' (DRI).

By contrast, the conditioning quality (that is, the rule of law) is used as a weighting factor that downgrades democratic rights for deficiencies in the rule of law. For this reason, the rule of law is measured in fractions of its maximally known strength, from 0.0 for the weakest observed rule of law to 1.0 for the strongest observed rule of law. We call this fractional index the 'rule of law index' (RLI).

One then weights the defining property for deficiencies in its conditioning quality, using multiplication. The resulting index measures the presence of democratic rights *insofar as* the rule of law enforces them. This is an index of effectively institutionalized people power: in short, an effective democracy index (EDI).

The EDI is at minimum (0) *either* when democratic rights are absent (0 on the DRI) *or* when these rights are present, but minimal rule of law (0.0 on the RLI) renders them entirely ineffective. At the opposite extreme, the EDI is at maximum (100) *both* when democratic rights are fully present (100 on the DRI) *and* when maximum rule of law (1.0 on the RLI) renders them fully effective.

Scores on the EDI are intuitively meaningful. Consider a couple of hypothetical countries, as shown in Table 1. A-Land and B-Land both score at 80 percent in democratic rights, but while A-Land scores at 0.80 points in rule of law, B-Land scores only at 0.40 points. After weighting, A-Land ends up with an EDI of 64 percent (80 × 0.80), while B-Land ends up with an EDI of 32

Table 1. Hypothetical Scores on the Democratic Rights Index (DRI), Rule of Law Index (RLI), and Effective Democracy Index (EDI)

	DRI score	RLI score	EDI score (DRI * RLI)	Δ EDI
Similar DRI and different RLI (DRI high)				
A-Land	80	0.80	64	32
B-Land	80	0.40	32	
Similar RLI and different DRI (RLI high)				
C-Land	80	0.80	64	32
D-Land	40	0.80	32	
Similar DRI and different RLI (DRI low)				
E-Land	40	0.80	32	16
F-Land	40	0.40	16	
Similar RLI and different DRI (RLI low)				
G-Land	80	0.40	32	16
H-Land	40	0.40	16	

Notes:
DRI: democratic rights index (percentages, 0–100).
RLI: rule of law index (fractions, 0.0–1.0).
EDI: effective democracy index (weighted percentages, 0–100).

percent (80 × 0.40). A-Land's extensive democratic rights result in a high EDI score because a strong rule of law enforces these rights to a large extent. B-Land's similarly extensive democratic rights do not result in a high EDI score because a weak rule of law enforces these rights only to a small extent. Evidently, the translation of democratic rights into effective democracy is conditional on the rule of law.

The reverse holds true too: the translation of the rule of law into effective democracy is conditional on democratic rights. For instance, C-Land and D-Land score equally strongly in the rule of law, at 0.80. But in the case of C-Land, a strong rule of law enforces extensive democratic rights (80 percent), yielding a high EDI of 64; whereas in the case of D-Land, a strong rule of law enforces only a narrow base of democratic rights (40 percent), yielding a low EDI of 32. Hence, democratic rights and the rule of law condition each other.

Different combinations of democratic rights and the rule of law can lead to the same unfavorable outcome in effective democracy. B-Land and D-Land score similarly poorly in effective democracy, at 32 percent, but for different reasons. B-Land scores poorly because a weak rule of law leaves its extensive democratic rights largely unenforced. D-Land scores equally poorly because its strong rule of law enforces only a narrow base of democratic rights. Hence, the people of the two countries find themselves equally *disempowered*, though for different reasons. As a measure of people power, the EDI intends to make weaknesses in institutionalized people power apparent – no matter for which reason they exist.

2.3. Indicators

To measure effective democracy, one needs indicators of democratic rights and the rule of law. As for democratic rights, Alexander and Welzel use the freedom ratings by Freedom House (2008). In terms of spatial and temporal coverage, the freedom ratings provide the most encompassing data on the rights that define liberal democracy (Diamond, 2008). Furthermore, even though the ratings

have been criticized for lack of transparency in coding rules (Munck and Verkuilen, 2002), the ratings fare well in measurement reliability compared with other democracy indices (Bollen and Paxton, 2000; Casper and Tufis, 2002). Hence, the use of the freedom ratings as a measure of democratic rights seems defensible, especially for the purpose of large-*N* analyses.

The freedom ratings are provided in two indices. The 'civil liberties' ratings indicate mostly private freedoms that represent autonomy rights. The 'political rights' ratings indicate public freedoms, reflecting participation rights. For the years 2002 to 2006, the two ratings correlate at $r = .94$ ($N = 190$). As they supplement each other in generating democratic rights, they are averaged to obtain an overall index of democratic rights. The index is transformed into a 0–100 range, indicating the presence of guaranteed democratic rights in percentages of the maximum. Table 2 illustrates how the original Freedom House ratings are transformed into percentages on the democratic rights index. The following formula performs the transformation:
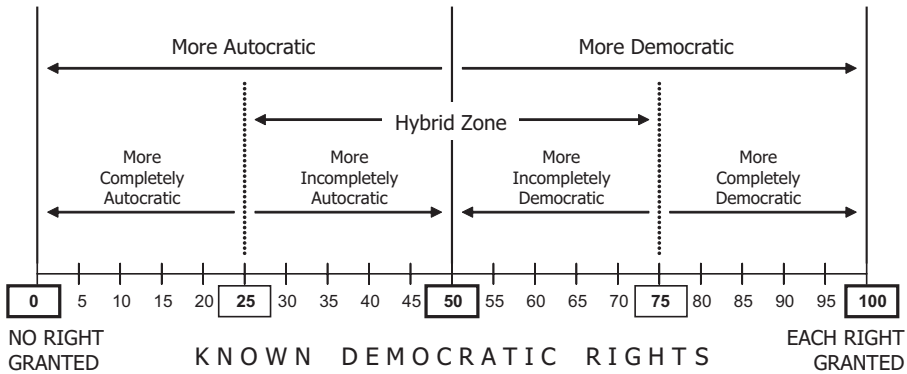
$$DRI = (14 - (PRR + CLR))/0.12$$

where DRI is the democratic rights index, PRR is the Freedom House political rights rating (1–7, in which 1 is widest political rights), and CLR is the Freedom House civil liberties rating (1–7, in which 1 is widest civil liberties).

The DRI provides intuitively meaningful proportions of the maximum of democratic rights, starting from guarantees of none of these rights (0 percent) to guarantees of some of them (a quarter or a third, that is, 25 percent and 33 percent), half of them (50 percent), most of them (two-thirds or three-quarters, that is, 66 percent and 75 percent), and all democratic rights (100 percent). As shown in Figure 2, the percentage thresholds on the DRI establish plausible categorizations of the absence and presence of democracy.

Table 2. Transforming the Combined Freedom House Ratings into a Democratic Rights Index

Freedom House's labels	Civil liberties rating (CLR)	Political rights rating (PRR)	Added ratings: CLR + PRR	Inversion and zero-basing: 14 − (CLR + PRR)	Percent standardization (DRI): (14 − (CLR + PRR))/0.12
Free	1	1	2	12	*100.00*
	1 (2)	2 (1)	3	11	91.66
	2	2	4	10	83.33
	2 (3)	3 (2)	5	9	*75.00*
Partly free	3	3	6	8	*66.66*
	3 (4)	4 (3)	7	7	58.33
	4	4	8	6	*50.00*
	4 (5)	5 (4)	9	5	41.66
	5	5	10	4	*33.33*
Unfree	5 (6)	6 (5)	11	3	*25.00*
	6	6	12	2	16.66
	6 (7)	7 (6)	13	1	8.33
	7	7	14	0	*0.00*

Figure 2. Democracy as the Percentage of Democratic Rights Granted by a State

The most encompassing measure of the rule of law is the World Bank's Rule of Law Index. Using expert judgments and population surveys, 'this index measures how strictly government agents abide by the laws' (Kaufmann et al., 2006). Strongly overlapping with the rule of law is another of the World Governance Indicators, the Control of Corruption Index. Corruption control is an integral facet of the rule of law, directed against unlawful power practices (Warren, 2006: 803–7). The Rule of Law Index and the Control of Corruption Index correlate at $r = .95$ ($N = 188$) for the years 2002–06, so Alexander and Welzel average them to obtain an overall RLI. Since this index is used as a weighting factor, Alexander and Welzel transform the scale into a range from 0.0 (for the weakest rule of law ever observed) to 1.0 (for the strongest rule of law ever observed). Scores between these two extremes can be any fraction of 1.0.[2] To force the rule of law scores into a range between 0.0 and 1.0, the following formula is used:

$$RLI = (COS – LOS)/(HOS – LOS)$$

where RLI is the rule of law index, COS is a country's observed score, LOS is the lowest ever observed score, and HOS is the highest ever observed score. Multiplying the 0–100 base index (that is, the DRI) by the 0.0–1.0 weighting index (that is, the RLI) we obtain the effective democracy index.

The EDI is not a latent variable built on a so-called 'reflective' logic of index construction. Instead, the EDI is built on what is called a 'formative' logic. In reflective logic, two or more components are summarized into an encompassing index because they 'reflect' the same latent dimension. In formative logic, components are summarized because they 'form' a combination that is (1) theoretically meaningful and (2) empirically valid in connecting a concept to its theoretical correlates. For formative concepts, unidimensionality is no requirement because two or more distinct components do not have to be highly correlated in order to form a meaningful and valid combination (Baxter, 2009; Coltman et al., 2008; Diamantopoulos and Winklhofer, 2001).

That is exactly the rationale of effective democracy: it is seen as a meaningful combination of democratic rights and the rule of law that is valid in connecting democracy to the correlates that key theories attribute to democracy. Formative concepts are judged on the basis of their meaning (do they make sense?) and their validity in capturing other aspects of reality to which the concept should be connected in theory.

The following section reexamines the EDI in light of Knutsen's criticism, focusing on the recent five-year time span from 2002 to 2006 to keep results comparable to Alexander and Welzel's findings. Data on the DRI, RLI, and EDI for these years are documented in Appendix Table 1 of Alexander et al. (2011).

3. Examining the criticisms of the effective democracy index

3.1. The 'ordinal measure' critique

The first problem with the EDI, according to Knutsen, is the 'ordinal measure' problem. The argument is that both the RLI and DRI are on an ordinal scale level and that the codes do not have a natural numerical meaning for this reason. Thus, the multiplicative procedure that is used to construct the EDI is flawed because this mathematical operation presumes numerically interpretable coding schemes.

Let us examine this problem separately for the RLI and the DRI. To begin with the RLI, the index is derived from dozens of data sources summarized into a factor scale that has more than 100 discrete values. For the EDI's construction, the rule of law data are 'normalized' into fractions from a minimum of 0.0 to a maximum of 1.0. The resulting coding scheme has clear numerical meaning, indicating distances to the weakest and strongest rule of law observed. With its more than 100 discrete values, the RLI is as close as one is likely to get to an interval scale.

Considering the DRI, both the political rights and civil liberties scales provide a 7-point index. Taken together, they provide a 13-point index, as shown in Table 2. The scale level of this index would just be ordinal if the scores provided information only on rank order, but not on rank intervals. This assumption is incorrect, however. Freedom House (2008) uses a checklist of 25 questions, each of which is rated on a 5-point scale. In combination, the 25 questions produce a 100-point scoring scheme. The combined 13-point index is simply a collapsed version of the 100-point scoring scheme. Based on that scheme, scores on the 13-point index represent equally sized intervals of known range.[3] Hence, the index does not only contain order information, but it also contains interval information.

If one inverts the 13-point index and transforms the scores into percentages, as shown in Table 2, one obtains the DRI – a perfect reproduction of the intervals on the original 100-point scoring scheme. The percentage scores on this scheme represent numerically meaningful proportions of the maximal scope of democratic rights.

In conclusion, the criticism that the scoring schemes of the DRI or the RLI have insufficient numerical meaning to allow for such mathematical operations as multiplication is unjustified.

3.2. The imbalanced link critique

Knutsen claims that the EDI is not an impartial measure of its two components because the EDI correlates less closely with democracy's defining property, the DRI, than with the conditioning quality, which was the Corruption Perception Index in the old EDI version. The looser tie of the EDI to democracy's defining property, Knutsen suggests, questions the EDI's status as a measure of democracy.

However, Knutsen's claim is false concerning the new version of the EDI, which uses the RLI instead of the Corruption Perception Index. The new 2002–06 EDI correlates at $r = .899$ ($N = 181$ and $p = .000$) with the 2002–06 RLI and at $r = .889$ ($N = 181$ and $p = .000$) with the 2002–06 DRI. The .01 difference between the two correlations is negligible and statistically insignificant.

3.3. The double-treatment critique

The problem that Knutsen emphasizes most is the 'double treatment' of countries by overlapping information. The criticism starts from Freedom House's self-declared intention to measure not only formally guaranteed rights, but rights in as far as they are respected in practice. This intention implies that rule of law information is already absorbed by the DRI. If so, weighting the DRI by the RLI is a redundant double treatment.

This argument assumes that the DRI absorbs most of the information included in the RLI. Indeed, the two are significantly correlated. Yet, a correlation of $r = .68$ ($N = 181$ and $p = .000$) indicates an overlapping variance of just 46 percent. This is considerable, but most of the variance (54 percent to be precise) in the DRI and the RLI is not overlapping. Consequently, at each DRI level there is a lot of independent variation in the RLI, making possible a *nonredundant* weighting of the DRI.

Still, one might insist that the DRI and the RLI overlap at least partially so that the double-treatment problem is reduced, but not removed. This seems to be a reasonable concern. But as the following exercise demonstrates, even for the overlapping components of the DRI and the RLI, the EDI does *not* produce redundant double treatment. Instead, creating the EDI is fully equivalent to filtering out absorbed rule of law information from the DRI and recombining it with the DRI inter-actively. Doing so establishes scale properties precisely as they are required by the logic of mutual conditionality.

3.3.1. Double treatment or establishing mutual conditionality?
Regressed on democratic rights, a country's observed score for the rule of law equals the score that is predicted by democratic rights plus/minus the residual distance that is not predicted by democratic rights. The predicted score represents the variance component of the rule of law that is absorbed by democratic rights. The residual score represents the variance component of the rule of law that is not absorbed by democratic rights. Accordingly, if one weights democratic rights for the rule of law, one weights for both the absorbed and the unabsorbed component of the rule of law.

As far as the unabsorbed component is concerned, the weighting procedure corrects the democratic rights index for rule of law information that is not incorporated in democratic rights. Clearly, there is no double treatment involved here. But for the absorbed component, this seems different. Because this component is already incorporated in democratic rights, using it again to weight democratic rights appears indeed like a double treatment. However, the intuitive plausibility of this suspicion is deceptive. Let us explain.

Even insofar as the democratic rights index absorbs rule of law information, it does it in the wrong way (Munck and Verkuilen, 2002: 28). Freedom House includes the rule of law among 4 of its 25 check questions. These 4 questions account for 16 points on the 100-point scoring scheme (Freedom House, 2008). Thus, the rule of law accounts for less than a sixth of the overall freedom rating. This proportion is not only arbitrary and minor, but it is simply 'averaged' into the overall scoring scheme. Averaging treats the rule of law as a supplementary aspect of democratic rights. This is the wrong combinatory logic if one accepts that the rule of law *conditions* democratic rights instead of supplementing them. Hence, what one should do is filter out the absorbed rule of law information and recombine it with democratic rights interactively.

To do so, we take advantage of a simple fact: the absorbed rule of law information is the variance component in the rule of law that is predicted by democratic rights. This factum involves two features that make it easy to filter out the absorbed rule of law information and recombine it interactively with democratic rights.

First, the predicted rule of law component is a linear transformation of democratic rights into the scale range of the rule of law. Thus, *any* linear transformation of democratic rights into the scale range of the rule of law represents the rule of law information absorbed by democratic rights. From this it follows that we can take the simplest such transformation to represent the absorbed rule of law information. The simplest transformation is just a hundredth of the given score on the democratic rights index. This transformation yields fractions from 0.0 to 1.0 in perfect correspondence with every given score in democratic rights (see the third column in Table 3).

Second, the original democratic rights index cannot change by filtering out *absorbed* rule of law information. This is true because the absorbed rule of law is completely predicted by democratic rights, which means it is a perfectly correlated component. Under all circumstances, filtering out a perfectly correlated component reproduces exactly the same index.

From these two facts it follows that filtering out the absorbed rule of law information and recombining it interactively with democratic rights is the same as multiplying the original democratic rights index by a hundredth fraction of itself. Doing so does not 'double treat' countries. It simply establishes mutual conditionality for the overlapping variance components of democratic rights and the rule of law.

Calculated for the overlapping variance components of the DRI and the RLI, the EDI does not take into account any new rule of law information that is not absorbed by the DRI. Under this condition, the EDI does not affect the rank order of countries known from the DRI. Yet, because the calculation establishes mutual conditionality, it changes the score distances between countries, and it does so exactly as required under mutual conditionality.

Table 3 illustrates how establishing mutual conditionality affects the score distances. The left-hand column shows scores on the original DRI in descending order from 100 to 0, with the distance to the next rank always being 2.5 percent points. With this grading of the 0–100 DRI scores, one obtains 41 ranks from 100 (rank 1) to 0 (rank 41). To the right of the DRI, the absorbed rule of law information is depicted as a hundredth fraction of the DRI scores, also given in descending order from 1.0 (rank 1) to 0.0 (rank 41). The EDI for the overlapping variance components of the DRI and the RLI is shown to the right of the absorbed RLI.
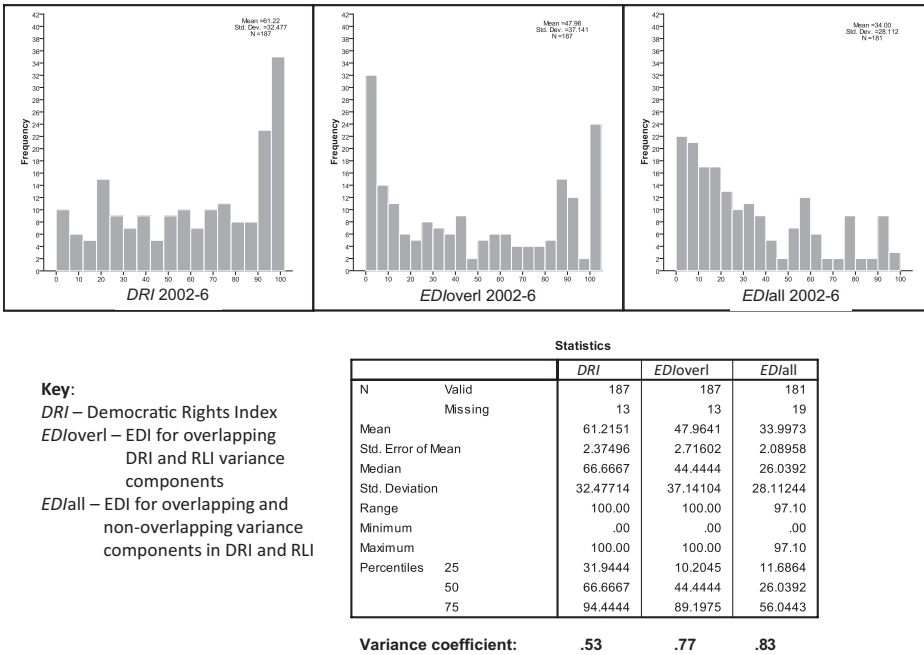
3.3.2. Rescaling effects. For the overlapping variance components of the DRI and the RLI, the EDI creates a perfectly regular asymmetry: only one-quarter of the DRI and RLI combinations yield an EDI score greater than 50 percent, whereas three-quarters of the DRI and RLI combinations yield an EDI score of less than 50 percent. This pattern reflects what Goertz (2006) calls the 'minimal condition logic.' In line with this logic, a high EDI score is obtained only when *both* the DRI and the RLI are high, whereas low EDI scores are obtained when the DRI *or* the RLI, *or* both, are low. By necessity, this logic creates asymmetry between a small set of combinations that yield high EDI scores and a large set of combinations that yield low EDI scores.

Examining the center diagram of Figure 3, one sees the distribution of countries over the scores that the EDI produces for the overlapping variance components of the DRI and the RLI. Comparing this distribution with the original DRI in the left-hand diagram, we see that, simply by establishing mutual conditionality, the distribution changes in a threefold way. First, there is a lower density of countries clustering at the very highest democracy scores. Second, the global mean score is lower, at 48 percentage points compared with 61 percentage points in the left diagram. Third, there is more variance between countries: the coefficient of variance is .77 compared with .53 in the left-hand diagram. Hence, already for the overlapping variance components, establishing mutual conditionality changes the picture toward a more demanding assessment of democracy. This is what one would expect from a more qualified notion of democracy.

Table 3. Score and Scale Property Changes through the EDI Procedure

Rank	DRI		RLI		EDI = DRI * RLI		DRI²/100	Distance to Next Rank	Δ DRI − EDI
1	100.0		1.00		100.0		100.0	5.0	0.0
2	97.5		.975		95.0		95.0	4.7	2.5
3	95.0		.950	Very strong rule of law	90.3	Very strong people power	90.3	4.7	4.7
4	92.5	Complete democracy	.925		85.6		85.6	4.6	6.9
5	90.0		.900		81.0		81.0	4.4	9.0
6	87.5		.875		76.6		76.6	4.3	10.9
7	85.0		.850		72.3		72.3	4.2	12.7
8	82.5		.825		68.1	Fairly strong people power	68.1	4.1	14.4
9	80.0		.800		64.0		64.0	3.9	16.0
10	77.5		.775		60.1		60.1	3.8	17.4
11	75.0		.750		56.3		56.3	3.7	18.7
12	72.5		.725		52.6		52.6	3.6	19.1
13	70.0	Incomplete democracy	.700		49.0		49.0	3.4	21.0
14	67.5		.675	Fairly strong rule of law	45.6	Fairly weak people power	45.6	3.3	21.9
15	65.0		.650		42.3		42.3	3.2	22.7
16	62.5		.625		39.1		39.1	3.1	23.4
17	60.0		.600		36.0		36.0	2.9	24.0
18	57.5		.575		33.1		33.1	2.8	24.4
19	55.0		.550		30.3		30.3	2.7	24.7
20	52.5		.525		27.6		27.6	2.6	24.9
21	50.0		.500		25.0		25.0	2.5	25.0
22	47.5		.475		22.5		22.5	2.2	24.9
23	45.0		.450		20.3		20.3	2.2	24.7
24	42.5		.425		18.1		18.1	2.1	24.4
25	40.0	Incomplete autocracy	.400		16.0		16.0	1.9	24.0
26	37.5		.375	Fairly weak rule of law	14.1		14.1	1.8	23.4
27	35.0		.350		12.3		12.3	1.7	22.7
28	32.5		.325		10.6		10.6	1.6	21.9
29	30.0		.300		9.0	Very weak people power	9.0	1.4	21.0
30	27.5		.275		7.6		7.6	1.3	19.1
31	25.0		.250		6.3		6.3	1.2	18.7
32	22.5		.225		5.1		5.1	1.1	17.4
33	20.0		.200		4.0		4.0	0.9	16.0
34	17.5		.175		3.1		3.1	0.8	14.4
35	15.0		.150		2.3		2.3	0.7	12.7
36	12.5	Complete autocracy	.125	Very weak rule of law	1.6		1.6	0.6	10.9
37	10.0		.100		1.0		1.0	0.4	9.0
38	7.5		.075		0.6		0.6	0.3	6.9
39	5.0		.050		0.3		0.3	0.2	4.7
40	2.5		.025		0.1		0.1	0.1	2.5
41	0.0		.000		0.0		0.0		0.0

In as far as the DRI absorbs rule of law information, the EDI produces country scores that are fully equivalent to an interactive recombination of the DRI with the absorbed RLI. This recombination establishes mutual conditionality and does not double treat countries in a redundant way.

Statistics

		DRI	EDIoverl	EDIall
N	Valid	187	187	181
	Missing	13	13	19
Mean		61.2151	47.9641	33.9973
Std. Error of Mean		2.37496	2.71602	2.08958
Median		66.6667	44.4444	26.0392
Std. Deviation		32.47714	37.14104	28.11244
Range		100.00	100.00	97.10
Minimum		.00	.00	.00
Maximum		100.00	100.00	97.10
Percentiles	25	31.9444	10.2045	11.6864
	50	66.6667	44.4444	26.0392
	75	94.4444	89.1975	56.0443
Variance coefficient:		**.53**	**.77**	**.83**

Key:
DRI – Democratic Rights Index
*EDI*overl – EDI for overlapping
          DRI and RLI variance
          components
*EDI*all – EDI for overlapping and
          non-overlapping variance
          components in DRI and RLI

Figure 3. Global Distribution of Countries on the DRI and the EDI (the Latter for Overlapping as well as both Overlapping and Nonoverlapping Variance Components on the DRI and RLI)

3.3.3. Re-ranking effects. For the overlapping variance components of the DRI and RLI, the EDI changes the country scoring, but not the country ranking in the DRI. For the nonoverlapping components, however, the EDI changes the country ranking in the DRI. Specifically, the EDI down-ranks countries to the extent that there are deficiencies in the rule of law that are *not covered* by the DRI.

Consequently, countries with favorable DRI scores, but poor RLI scores, obtain EDI scores as low as those of some milder versions of autocracy. This property of the EDI reflects the possibility that, in a highly corrupted democracy, ordinary people can be as disempowered as in a strictly law-abiding version of autocracy. If we accept that the rule of law is a conditioning quality of democratic rights, it follows inescapably that countries must be down-ranked to the extent that their deficiencies in the rule of law are unabsorbed by their rights ratings.

Because of these features, India's favorable DRI score of 75 percent is downgraded so much that its EDI score is just as low as that of Singapore. The reason is severe deficiencies in the rule of law that are not reflected in India's DRI score (see Alexander et al., 2011: Appendix Table 1). Indeed, India's RLI score is low, at .47 points, reflecting rampant corruption, clientelism, patronage, severe group discrimination, widespread political violence, and torture and other human rights abuses throughout large parts of the country (Vittal, 2003). With these violations, India's regime disempowers the people despite the fact that there are alterations in government through elections (Heller, 2000). Hence, India's wide extension of democratic rights remains largely ineffective, yielding an EDI score of roughly 35 percent (75 × 0.47). Echoing this assessment, the *Economist*'s Intelligence Unit classifies India as a 'flawed democracy' because of severe deficiencies in the

enforcement of its constitutional principles (*Economist*, 2007). India's weak performance in the rule of law does not seem to be a measurement error of the RLI.

An EDI of 35 percent places India at the level of Singapore. This may surprise some readers. But even though Singapore's DRI is already low, at 39 percent, the narrow base of democratic rights is almost fully enforced by a very strong rule of law, as manifest in an exceptionally high RLI score of 0.93. Thus, Singapore's EDI yields 36 percent (39 × 0.93), which is one percentage point above that of India. Even though Singaporeans live under a more restricted electoral regime than Indians, the rights of Singaporeans are otherwise less violated. Of course, this does not make Singapore any bit more democratic than its low DRI score suggests. The disempowerment that characterizes countries in the autocratic zone of the DRI is simply not further deepened by deficiencies in the rule of law.

This comparison of India and Singapore is further supported when we look at alternative measures of 'civic governance,' indicating a peaceful use of institutional power without violating, abusing, and terrorizing the people. We select the three civic governance indicators with the widest coverage of countries, including the inverted Gibney-Wood-Cornett (GWC) Political Terror Scale (Gibney et al., 2008), the Cingranelli-Richards (CIRI) Personal Integrity Index (Cingranelli and Richards, 2008), and the World Bank (WB) Political Stability Index.[4] Each of these three indicators places India and Singapore in similarly opposite positions as does the RLI. For the time span from 2002 to 2006, India scores 0.29 on the (inverted) Political Terror Scale, 0.02 on the Personal Integrity Index, and 0.39 on the Political Stability Index. Singapore scores 0.77, 0.83, and 0.89, respectively, on these indices. Had we used any of these indices instead of the RLI to create the EDI, we would have obtained a similar result: India's EDI would drop below the level of Singapore.

Under law enforcement criteria, people power in India is as weakly institutionalized as in Singapore. Certainly, the weaknesses derive from different causes: in Singapore, people power is weakly institutionalized because of a narrow base of democratic rights; in India, people power is weakly institutionalized because a wide base of democratic rights is weakly enforced. The EDI is constructed to expose such weaknesses in institutionalized people power, whether they result from limitations in the base of democratic rights or lack of the enforcement of rights.

Let us summarize. Index scores in the rule of law include both a component absorbed and a component unabsorbed by democratic rights. Because of this, weighting democratic rights for deficiencies in the rule of law does two things at once. For the absorbed component, the weighting procedure is identical to filtering out absorbed rule of law information and recombining it with democratic rights interactively. Doing so does not affect the country ranking, but rescales democracy scores in such a way that three times as many RLI and DRI combinations lead to low scores as to high scores on the EDI. For the nonabsorbed component, the weighting procedure downranks previously equally ranked countries for deficiencies in the rule of law that are not absorbed by democratic rights. Both rescaling and re-ranking are required by the logic of mutual conditionality. Neither involves a double treatment.

3.4. A word on case picking

Knutsen picks a number of cases, such as Argentina, Benin, India, and Singapore, to suggest implausible ratings on the EDI. However, the cases seem implausible only from a purely electoral perspective. The arguments Knutsen uses as evidence that a country should be rated as more democratic than it appears on the EDI all invoke electoral regime criteria, such as the existence of fair

elections, change in government, and unhindered campaign activity. Thus, Knutsen applies the criteria of an electoral definition of democracy to evaluate various countries' EDI scores when the whole point of the EDI is to overcome a purely electoral definition. Clearly, the EDI is not judged against its own premises.

Turning the tables on Knutsen, one can easily gather a similarly suspicious list of cases on the DRI (for the following examples, see Alexander et al., 2011: Appendix Table 1, column 3). On the 2002–06 DRI, Portugal scores as high as Sweden, Dominica as high as Germany, and Mongolia as high as South Korea, despite enormous differences in the rule of law and in other conditioning institutional qualities for democracy. In a number of cases, such differences in conditioning qualities appear reverted on the DRI. Zimbabwe scores higher on the DRI than Vietnam, and Ghana higher than Argentina. Vice versa, Russia scores lower than Ethiopia and Uganda, and so does Bosnia compared with Tanzania, Turkey compared with Sri Lanka, Macedonia compared with Peru, and Japan compared with Belize.

On a more systematic note, Knutsen criticizes the fact that great progress in democratization does not surface in the EDI when the rule of law remains weak. Yet, under the premise that democratic rights are meaningful to the extent and only to the extent that they are enforced, the criticism actually runs in the opposite direction: large improvements in democratic rights greatly overestimate people's empowerment when the rule of law remains weak.

3.5. Reliability problems

Knutsen argues that the EDI is a less reliable measure of democracy than other standard democracy indices. He supports this claim with a factor analysis in which the EDI loads less strongly on the underlying democracy factor than the other democracy indices.

This is a fair reliability test only if the EDI and the standard democracy indices are intended to measure exactly the same concept. This is, however, not the case. Instead, the EDI is meant to be a conceptual innovation on standard measures of democracy. Unlike the standard democracy indices, the EDI does not measure just the presence of democracy's defining properties. Instead, it is a strictly *conditional* measure: it measures the presence of democracy's defining properties on the condition that the institutional qualities needed to make these properties effective are in place. Establishing this conditionality is a novelty that should set the EDI apart from standard democracy indices.

Knutsen's factor analysis simply confirms this point, underlining the singularity of the EDI among existing democracy indices. Knutsen's factor results are exactly what one would expect if the EDI is unique among existing democracy indices in capturing institutional qualities that condition democracy. Accordingly, if one includes such conditioning qualities, the EDI appears as a bridge that links the defining properties of democracy with their conditioning qualities.

The factor analysis in Table 4 demonstrates this point. The analysis covers three indices that measure the defining properties of democracy: the Polity Democracy-Autocracy Index, the Vanhanen Electoral Democracy Index (Vanhanen, 2003), and the CIRI Empowerment Rights Index.[5] The analysis also includes three indices that measure conditioning qualities of democracy: the GWC (inverted) Political Terror Scale, the WB Political Stability Index, and the CIRI Personal Integrity Index. The EDI is included as a seventh index that might link the other two groups. The results support this expectation.

The first group of three indices in Table 4 represents one underlying dimension: the defining properties of democracy. The second group of three indices represents a second dimension:

Table 4. Dimensional Structure of the Defining Properties and Conditioning Qualities of Democracy: Principal Components Analysis

	Dimension 1: defining properties	Dimension 2: conditioning qualities
Polity Democracy-Autocracy Index	.94	.17
Vanhanen Electoral Democracy Index	.87	.29
CIRI Empowerment Rights Index	.86	.35
Effective Democracy Index	.75	.55
GWC (Inverted) Political Terror Scale	.26	.94
WB Political Stability Index	.28	.91
CIRI Personal Integrity Index	.36	.90
Eigenvalue	5.1	1.2
Explained variance	46	44
KMO measure	.81	
N (number of countries)	143	

Note: Entries are factor loadings after varimax rotation.

conditioning qualities of the defining properties. All six indices show only small minor loadings on the other dimension. The exception is the EDI. The EDI has its main loading on the defining property dimension (.75), so it still primarily represents democracy. But the EDI is less exclusively a representative of just democracy than the other three indices. This is obvious from the fact that the EDI also has a considerable minor loading (.55) on the conditioning quality dimension, much higher than the other democracy indices. This result confirms the reliability of the EDI as a measure that includes conditioning qualities untapped by other democracy indices.

3.6. Validity problems

Knutsen claims that the EDI is biased in favor of rich countries. As evidence of this claim he presents regression results showing that the EDI's unshared variance with the DRI is strongly predicted by a country's per capita GDP. Knutsen concludes that this bias questions the validity of the EDI.

The link between the EDI and economic development is a fact, but the conclusion that this link invalidates the EDI misinterprets validity theory. Knutsen's finding simply shows that the rule of law is more closely correlated with economic development than are democratic rights: the 2002–06 RLI and 2002–06 DRI correlate, respectively, at $r = .82$ and $r = .47$ ($N = 169$ and $p = .000$) with per capita GDP in purchasing power parities in 2002. Accordingly, when we weight the DRI for the RLI to create the EDI we necessarily obtain a closer link to economic development than the DRI has: the 2002–06 EDI correlates at $r = .75$ with per capita GDP.

In fact, the EDI is more closely linked than the DRI to *everything* that is a closer correlate of the RLI. To conclude that this regularity questions the validity of the EDI is to argue that the product of two factors is always invalid when one of the factors has its own correlates. The fact that the rule of law has its own correlates by no means invalidates the rule of law as a conditioning quality of democracy.

Let us examine this question further using Knutsen's own approach. The author analyses the residuals of the EDI that are unexplained by the DRI. These residuals represent the deviation of the

Table 5. Partial Correlation of the EDI-DRI Residuals with the Institutional Qualities of Democracy not Incorporated by the DRI

Institutional qualities, uncovered by DRI (residuals)	Correlation with EDI-DRI residuals
GWC (Inverted) Political Terror Scale, 2002–06	.36 (172)
CIRI Personal Integrity Index, 2002–06	.34 (156)
WB Political Stability Index, 2000–06	.50 (176)
WB Voice and Accountability Index, 2000–06	.76 (181)

Note: All correlations are significant at the .001 level.

Table 6. Explaining the EDI-DRI Residuals: OLS Models

Predictors	Dependent variable: EDI-DRI residuals, 2002–06
GDP per capita in 2002 at PPP	.37 (6.7)***
Democracy residual (uncovered by the DRI)[a]	.77 (9.9)***
Adjusted R^2	.67
N (number of countries)	165

Notes: Entries are standardized beta-coefficients with T-values in parentheses. Regression diagnostics for heteroskedasticity (White test), multicollinearity (variance inflation factors), and influential cases (DFFITs) reveal no violation of OLS assumptions.
Significance levels: * $p < .100$, ** $p < .050$, *** $p < .005$.
[a]The residual in the 2002–06 WB Voice and Accountability Index is unexplained by the 2002–06 DRI.

EDI from the DRI. The EDI-DRI residual for each country is displayed in the right-most column of Appendix Table 1 in Alexander et al. (2011).

It is of inherent interest to know to what extent the deviation of the EDI from the DRI results from the coverage of the conditioning qualities of democracy that are not covered by the DRI. The existence of this pattern would validate the EDI as a measure of democracy that *taps otherwise untapped* qualities of democracy. This question can be examined by correlating the EDI-DRI residuals with those parts of the variation in conditioning qualities that are not absorbed by the DRI. Table 5 shows these (partial) correlations, correlating the EDI-DRI residuals with the residuals in the (inverted) Political Terror Scale, the residuals in the Personal Integrity Index, and the residuals in the Political Stability Index (all of which are residuals that are unexplained by the DRI).

In addition, the EDI-DRI residuals are correlated with the residuals in the WB Voice and Accountability Index – these are also residuals that are unexplained by the DRI.[6] The Voice and Accountability Index is an index of democracy indices and, hence, covers democracy's defining properties most comprehensively. The residuals in this index represent all those defining features of democracy that are not covered by the DRI. Correlating these residuals with the EDI-DRI residuals tells us whether and to what extent the EDI deviates from the DRI because the EDI covers aspects of democracy that the DRI does not cover.

The correlations in Table 5 are all statistically highly significant. They show that the EDI-DRI residuals associate positively with both the conditioning qualities and defining properties of democracy that the DRI itself does not cover.

From the viewpoint of validity, it is by no means problematic that the EDI-DRI residuals correlate with economic development. It is, however, an interesting question if the EDI-DRI residuals correlate more strongly with economic development than with the defining properties of democracy that the DRI does not incorporate. Apparently, this is not the case, as the regression analyses in Table 6 demonstrate.

The analyses in Table 6 regress the EDI-DRI residuals on a country's per capita GDP and on the defining properties of democracy that are not incorporated by the DRI (using the residuals in the WB Voice and Accountability Index that the DRI leaves unexplained). Apparently, the deviation of the EDI from the DRI is more strongly linked with aspects of democracy untapped by the DRI than with per capita GDP. This is evident from the larger regression coefficients and the higher T-values for the untapped democracy aspects.

According to these findings, the EDI deviates from the DRI in ways that tie the EDI to otherwise untapped qualities of democracy. If this shows anything, it is the higher validity of the EDI compared with the DRI as a qualified measure of democracy.

Another take on validity is provided by the 'nomological' validity approach (Adcock and Collier, 2001; Denton, 2008; Elkins, 2000). In the *predictive* version, this approach qualifies an index as a more valid measure of the underlying concept if this index predicts better than its alternatives the theoretically expected *consequences* of the concept. In the *postdictive* version, this validity criterion qualifies an index as more valid if it is better predicted than its alternatives by the theoretically expected *antecedents* of the concept in question.

As regards predictive validity, a widely agreed consequence of democracy is peace. Initially, the democratic peace thesis was discussed for its 'dyadic' evidence: democracies do not fight *each other* (Russett and Oneal, 2001). But since the beginning, it has also been argued that democracies are *generally* more peaceful (Gelpi and Griesdorf, 2001). Support for this claim has been weak until recently, but new evidence shows two things. For one, Forsberg (2007) and Stockemer (2008) found support for a 'monadic' interpretation of the democratic peace: democracies are less likely to initiate violent conflict with any kind of regime, including autocracies. Next, in how they treat their people, democracies are also more peaceful internally (Davenport, 2007; Davenport and Armstrong, 2004). Evaluated against this widened notion of the democratic peace thesis, the democracy index that predicts countries' external and internal peace the best is the most valid democracy index (for a similar logic, see Elkins, 2000).

To perform a predictive validity analysis, the regression models in Table 7 use the (inverted) Global Peace Index in 2008 as the dependent variable. This index is based on more than 20 indicators covering a country's involvement in violent conflicts, both externally and internally. These indicators are summarized into a fine-graded scale with multi-digit fractions from 1 to 4 (Vision of Humanity, 2010), which we inverted into a scale from 0.0 for the lowest observed peace level to 1.0 for the highest observed level.[7] Because Israel is an outlier on the Global Peace Index, Table 7 shows each model in two versions: including Israel (results without parentheses) and excluding Israel (results in parentheses). Regardless of whether Israel is included, the EDI's predictive power with respect to peace outperforms those of the other democracy indices. Moreover, the EDI is the only democracy index next to which the predictive power of economic development with respect to peace turns completely insignificant.

Hence, the EDI does not just favor rich countries, as Knutsen claims. It favors countries whose democratic qualities are better than the DRI suggests. By the same token, the EDI disfavors countries whose democratic qualities are lower than the DRI suggests. In conclusion, the EDI corrects the DRI precisely in the ways it should from a qualified point of view.

As regards postdictive validity, Alexander and Welzel (2008; 2011) invoke human empowerment theory. In this theory, democracy is first and foremost an empowering institutional feature that should be antedated by empowering conditions at the social basis of democracy. Accordingly, the index of democracy that is best predicted by these empowering conditions is the 'postdictively' most valid one. As their analyses show, the EDI has higher postdictive validity than all of the standard indicators of democracy for a wide set of empowering conditions at the social basis of democracy, including economic prosperity, distributional equality, civic values, and civil society.

Table 7. Regressing the Global Peace Index 2008 on Economic Development and Various Indices of Democracy

Predictors	Dependent variable: Global Peace Index 2008 (inverted)											
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Beta	T-value	Beta	T-value	Beta	T-value	Beta	T-value	Beta	T-value	Beta	T-value
GDP per capita 2002 in PPP	.32 (.36)	3.7*** (4.2***)	.43 (.46)	5.0*** (5.5***)	.36 (.40)	3.8*** (4.2***)	.36 (.40)	4.2*** (4.7***)	.18 (.22)	1.9* (2.3*)	.03 (.06)	0.3 n.s. (0.6 n.s.)
FH Democratic Rights Index 2002–06	.32 (.34)	3.6*** (4.0***)										
Polity Democracy 2002–06			.17 (.19)	2.0* (2.3*)								
Vanhanen Electoral Democracy					.21 (.22)	2.2* (2.3*)						
CIRI Empowerment Rights 2002–06							.26 (.26)	2.9*** (3.1***)				
WB Voice and Accountability 2002–06									.47 (.47)	4.8*** (5.1***)		
Effective Democracy Index 2002–06											.58 (.59)	5.0*** (5.2***)
Adjusted R²	.30 (.35)		.25 (.30)		.25 (.30)		.27 (.32)		.35 (.39)		.36 (.41)	
N	123 (122)		120 (119)		123 (122)		123 (122)		124 (123)		123 (122)	

Notes: Results in parentheses exclude Israel. Entries are standardized beta-coefficients with T-values in parentheses. Regression diagnostics for heteroskedasticity (White test), multicollinearity (variance inflation factors), and influential cases (DFFITs) reveal no violation of OLS assumptions.
Significance levels: * p < .100, ** p < .050, *** p < .005.

In short, what has been pointed out as a systematic measurement bias of the EDI (namely, its closer association with antecedents, consequences, and the qualities of democracy) should instead be interpreted as an outright validity certificate of the EDI.

3.7. Rule of law when democracy is absent

The ultimate validity question, however, has not been addressed yet. It is the question of whether a stronger rule of law in the case of autocracies really means lesser disempowerment of the people. This is assumed in our index construction because a stronger rule of law yields a higher EDI score not only in the democratic zone of the DRI, but also in the autocratic zone of the DRI.

This feature might appear misleading. The stronger rule of law among autocracies could mean more effective repression and thus more, not less, disempowerment of the people. In this case, the logic of our index construction would operate in the wrong direction where democracy is largely absent. On the other hand, it is just as plausible that, even under the absence of democracy, a stronger rule of law results in less disempowerment of the people because it saves them from the worst excesses of arbitrary rule. Indeed, as Rose (2009) argues, even in autocracies, repression is a power practice that occurs more often in violation of formally enacted laws than as an act of true-to-the-letter enforcement of the law.

The case cannot be decided theoretically. It is an empirical question whether the stronger rule of law in autocracies means more or less repression. We can sort this out by examining how the rule of law relates to measures of state repression, especially in the zone where we observe the absence of democracy. Using the 2002–06 Political Terror Scale (non-inverted this time) as a measure of state repression, the answer is straightforward. Among the 68 states worldwide which fall into the autocratic zone of the DRI in 2002–06, state repression correlates strongly *negatively*, at $r = -.65$, with the rule of law. Even among autocracies, a stronger rule of law means less, not more, state repression.[8]

Two cases in point are North Korea and Singapore. North Korea is a repressive autocracy and so its political terror score is high, at 0.73 for the years 2002–06. If the rule of law in autocracies indicates high levels of state repression, North Korea's rule of law score should be high. But it is very low, at 0.21 for 2002–06. Singapore is an autocratic example in the opposite direction. Its rule of law score is favorable, indeed, one of the highest in the world, at 0.93. If such a high rule of law score in a non-democracy is indicative of state repression, Singapore's score in political terror should be high. But it is low, at 0.23. In fact, this score is far below that of some established democracies, including India with a very high political terror score of 0.71.

The weighting procedure used to create the EDI can be applied to various alternative indicators, so we can create different versions of the EDI and compare them. For instance, instead of the RLI, the (inverted) Political Terror Scale can be used as the component to weight the DRI. We call the resulting index 'EDI 2'. But we can also use the Personal Integrity Index to weight the DRI (EDI 3) or the Political Stability Index (EDI 4). We can also exchange the base component of the EDI (that is, the DRI) by using a percentage version of the Empowerment Rights Index (EDI 5). Finally, we can exchange both the base component and the weighting component of the original EDI, for instance, by weighting the Empowerment Rights Index as the base component by the Political Stability Index as the weighting component (EDI 6).

In none of these versions of the EDI does the empirical pattern differ substantially from the original EDI. Table 8 demonstrates this point, showing how the original EDI correlates with alternative versions of the EDI that vary the EDI's weighting component (EDI 2 to EDI 4) or its base component (EDI 5) or both (EDI 6). None of the correlations is below $r = .91$. Hence, applying the

Table 8. Correlations between Different Versions of the EDI, measured for 2002–06: Pearson's r (N)

	EDI (DRI * RLI)
EDI 2 (DRI * IPTS)	.92*** (172)
EDI 3 (DRI * IRI)	.92*** (156)
EDI 4 (DRI * PSI)	.95*** (176)
EDI 5 (IEI * RLI)	.97*** (156)
EDI 6 (IEI * PSI)	.91*** (156)

Notes:
DRI: FH Democratic Rights Index (0–100 scale).
IPTS: Inverted Political Terror Scale (0.0–1.0 scale).
IRI: CIRI Personal Integrity Index (0.0–1.0 scale).
PSI: WB Political Stability Index (0.0–1.0 scale).
IEI: CIRI Integrity and Empowerment Index (0–100 scale).
RLI: Rule of Law Index (0.0–1.0 scale).

weighting procedure to different indicators of democracy's defining and conditioning features produces similar patterns. The logic of conditionality is to a large extent indicator resistant.

4. Conclusion

The EDI corrects the DRI for institutional qualities that are conditional to democracy, but are untapped by the DRI. Compared with other democracy indices, the EDI changes countries' democracy scores systematically in a direction that increases democracy's link to other societal phenomena to which democracy should theoretically be linked. Associative strength with theoretically expected correlates is considered a validity criterion, not an undesirable bias, in measurement theory.

Interestingly, the EDI's greater associative strength is obtained by the *conditioning* qualities rather than the *defining* properties of democracy. This is truly a new insight. What links democracy to other social phenomena is not the defining properties of democracy itself, but the conditioning qualities that make the defining properties work.

This observation is illuminating. Before the third wave of democratization, electoral democracy was a distinct and rare type of regime that was largely limited to the western world. At that time, western countries did not engage in democracy promotion and so authoritarian elites around the world faced little pressure to adopt electoral democracy. In the meantime, the incentives of the international system have changed. Countries that adopt electoral democracy have advantages, including privileged access to western financial support. In response to this situation, authoritarian elites have managed to install competitive electoral regimes while still withholding power from the people. The strategy to achieve this goal is to undermine the qualities that condition democracy, especially the rule of law. This is easier in poor than in rich countries and in less than in more educated populations because in the former, the people have less means and skills to resist the elites' power manipulations. For this reason, things that have been emphasized in democratic theory as developmental requisites of democracy are nowadays found to be more closely linked with the conditioning qualities than with the defining properties of democracy.

Insisting in this case on a purely electoral definition of democracy obscures the true challenges democracy faces today: manipulations of democracy's conditioning qualities. What is needed therefore is an index of democracy that shows the deficiencies in democracy *even under fully operating electoral regimes*. This is what the index of effective democracy accomplishes.

Acknowledgements

Notes

1. For a more detailed elaboration of this position, see Alexander et al. (2011: Appendix n. 1).
2. The minimum in the RLI (at 0.0) is an empirically observed one, not a theoretical one. The same is true for the maximum (1.0) in the RLI: this is also an empirically observed extreme rather than a theoretical one. Whenever, as in the case of the RLI, the theoretical extremes of a concept are not observed, one can assign the numerical minimum and maximum to the empirically observed extremes.
3. Collapsing the 100-point scoring system into a 13-point index creates 12 intervals, each covering a range of exactly 8.33 points.
4. Each of the three indicators is normalized into a 0-to-1.0 range and described in more detail in Alexander et al. (2011: Appendix n. 2).
5. For a detailed description of these democracy indices, see Alexander et al. (2011: Appendix n. 3).
6. For a detailed description of the Voice and Accountability Index, see Alexander et al. (2011: Appendix n. 4).
7. Data and documentation are available for download at http://www.visionofhumanity.org/gpi-data/#/2010/scor.
8. For democracies, of course, this holds true too: among the 108 societies in the democratic zone of the DRI, the correlation is $r = -.61$.

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